Technical Work Group
of the Imperial Valley Study Group
REVISED Meeting Minutes: December 7, 2004

Attendees: David Barajas, Mark Etherton, IID; David Le, Jeff Miller, CA ISO: Robert Jackson, SDG&E; Phillip Leung, SCE; Dale Stevens, MidAmerican Energy; Leonard York, WAPA; Dave Olsen, CEERT. Observers: Mike Evans, Shell Trading/Coral Energy; Jim Kritikson, consultant. Ann Finley of the Metropolitan Water District has indicated that she will not participate in the Technical Work Group (but will attend the meetings of the full Imperial Valley Study Group). Minutes were recorded by Dave Olsen.

David Le/CA ISO will modify the WECC 2014 Heavy Summer case to serve as the pre-project base case for the Imperial Valley Study Group power flow studies. Specifically, he will update the 2014 HS loads for SCE and SDG&E; add the STEP Short-Term upgrades to achieve a 8,055 MW rating on P-49; and add one new 500 kV transmission line in the LA Basin. He will modify the WECC 2009 Light Autumn case in the same way and update it to include 2014 loads and resources. He will send these modified base cases first to IID. The ISO will send the dynamic data file for use with the base case.

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IID will add a detailed representation of its system and loads in 2014. It will add geothermal generation in 200 MW increments, using the same operating parameters as for Salton Sea Unit 6.

IID will then forward the case to SDG&E; SDG&E will send it to SCE; and SCE will forward it to WAPA. WAPA will add its 2014 loads and send the modified case back to IID. IID and SDG&E will then model the master base case on their systems.

Dispatch scenarios: We agreed to use the ISO Generation Retirement assumptions for those units under ISO control, to find which area generation would be displaced as geothermal generation is added. These are available on the ISO website, under Grid Planning/Standards/Generation Assumptions/Retirement. The worst case could likely show all 2,000 MW of new/incremental Imperial Valley geothermal power flowing North, when Northwest/Northern California generation is backed off. Jeff Miller suggested looking at this first.

Contingencies: Each TO will list the contingencies it will model. We will compile these into a Master Contingency list. Most felt N-1 contingencies sufficient for a screening level study, but each TO is free to model any contingencies it believes appropriate. SDG&E will likely look at a few N-2 contingencies.

Congestion relief: Geothermal will be dispatched first because of its very low variable cost. New geothermal generation will not be considered incremental to all existing generation. Re-dispatch is an option for minimizing deliverability cost; re-dispatch may

be less expensive than adding physical transfer capacity. The ISO does not guarantee any generating unit that it will be dispatched.

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Work Flow/Schedule: We will aim to have the two base cases (2104 HS, 2014 LA) finalized and circulated to the group by our next meeting Jan. 20. TOs will look at the transmission alternatives and dispatch/contingency scenarios all at once, starting with the Heavy Summer case first.

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Next Meetings:

Technical Work Group:

January 20, 2005, 1:00-4:00 PM, at SDG&E, San Diego

February 10, 9:00-11:00 AM at SDG&E, San Diego (following the February 9 STEP meeting)

March 10, 1:00-4:00 PM, at SDG&E, San Diego

Full Study Group:

February 10, 2005, 11:30-3:00 PM, at SDG&E, San Diego

The meeting was adjourned at 4:30 PM.